

Appl. No. 10/064,215
Amdt. dated November 15, 2005
Reply to Office action of August 23, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (currently amended): A data clock recovery circuit for generating an output signal that is

5 synchronized with an input signal; the data clock recovery circuit comprising:

a charge pump for generating a charging current according to a phase difference

between the input signal and the output signal;

a first filter electrically connected to the charge pump for generating an output

voltage corresponding to the charging current;

10 an oscillator for adjusting a phase or frequency of the output signal according to a voltage;

a second filter for adjusting the output voltage of the first filter;

a switch circuit electrically connected in series between the first filter and the

15 oscillator second filter for controlling the electrical connection between the first filter and the oscillator second filter; and

a second filter electrically connected between the switch circuit and the oscillator for adjusting the output voltage of the first filter;

an oscillator for adjusting a phase or frequency of the output signal according to a voltage;

20 wherein when the charge pump is operating, the switch circuit disconnects the first filter from the oscillator, and when the charge pump stops operating, the switch circuit connects the first filter and the oscillator such that the oscillator adjusts the frequency or phase of the output signal according to the output voltage of the first filter.

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2 (currently amended): The data clock recovery circuit of claim 1 wherein the second filter comprises at least a second capacitor; when the switch circuit connects the first

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filter and the ~~oscillator~~ second filter, the second capacitor is charged or discharged by the output voltage of the first filter so as to change a waveform of the output voltage.

- 5 3 (currently amended): The data clock recovery circuit of claim 2 wherein the first filter comprises at least a first capacitor, and the charging current charges or discharges the first capacitor for changing the output voltage of the first filter.
- 4 (currently amended): A data clock recovery method for generating an output signal that is synchronized with an input signal; the method comprising: generating a charging current according to a phase difference between the input signal and the output signal; generating an output voltage according to the charging current with a first filter; and 15 adjusting the output voltage of the first filter with a second filter; connecting a switch in series between the first filter and the second filter; and closing the switch for adjusting a frequency or phase of the output signal only after a waveform of the output voltage has been stable.
- 20 5 (cancelled).